

## ABSTRACT

This invention provides a process for producing a 5-hydroxy-3-oxopentanoic acid, a useful pharmaceutical intermediate, easily from a readily available, inexpensive starting material without using any extraordinary production equipment such as a very-low-temperature reactor.

Thus, this invention provides a process for producing a 5-hydroxy-3-oxopentanoic acid which comprises permitting a lithium amide to act upon a mixture of an acetic acid ester and a 3-hydroxypropionic acid derivative at not below -20 °C.

Further, this invention also provides a process for producing a 5-hydroxy-3-oxopentanoic acid which comprises treating a mixture of an acetic acid ester and a 3-hydroxypropionic acid derivative with a Grignard reagent to prepare a mixture of a compound and an acetic acid ester of the above formula (I),

and permitting a lithium amide to act upon the mixture at a temperature not below -20 °C.